United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE[1]

Agenda Item 1.22: to consider progress of ITU-R studies concerning future development of IMT-2000 and systems beyond IMT-2000, in accordance with Resolution **228 (WRC-2000)**;

Background Information: WRC-2000 considered issues related to IMT-2000, resulting in the identification of additional spectrum for the terrestrial component of IMT-2000 in the Radio Regulations **5.317A** and **5.384A**. This spectrum was identified in addition to that initially identified for IMT-2000 at WARC-92 in footnote **5.388**. WRC-2000 also identified existing global MSS allocations as being available for use by the satellite component of IMT-2000, in accordance with Resolution **225**.

Resolution **228 (WRC-2000),** which is related to agenda item 1.22, invites ITU-R to continue studies on overall objectives, applications and technical and operational implementation for the future development of IMT-2000 and systems beyond. ITU-R Working Party 8F has developed a Draft New Recommendation on the vision, framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000 [DNR-VIS], which is expected to be approved at the ITU-R Study Group 8 meeting in February 2003. Studies will continue to be carried out in WP 8F, and are scheduled to be completed before WRC-07. The results of these studies will indicate which requirements should be reviewed by WRC-07.

Proposal:

USA/ /1 **<u>NOC</u>**

Article 5

Frequency Allocations

Reason: ITU-R has not completed the studies on spectrum requirements and potential frequency ranges suitable for the future development of IMT-2000 and systems beyond IMT-2000.

USA/ /2 **MOD**

RESOLUTION 228 (<u>REV.</u> WRC-~~20~~00<u>3</u>)

Studies to consider requirements <u>and frequency matters related to</u> ~~for~~ the future development of IMT-2000 and systems beyond IMT-2000 as defined by ITU-R

[1] This is a revision to a previous U.S. proposal for Agenda Item 1.22 (December 10, 2002)

The World Radiocommunication Conference ~~(Istanbul, 2000)~~(Geneva, 2003),

considering

a) that International Mobile Telecommunications-2000 (IMT-2000) systems have started operation in some countries in ~~is scheduled to start service around~~ the year 2000~~, subject to market and other considerations~~;

~~*b) that Question ITU-R 229/8 addresses the future development of IMT-2000 and systems beyond IMT-2000;*~~

~~*c)*~~*b)* that the technical characteristics of IMT-2000 are specified in ITU-R and ITU-T Recommendations, including Recommendation ITU-R M.1457 which contains the detailed specifications of the radio interfaces of IMT-2000;

c) that Question ITU-R 229/8 addresses the future development of IMT-2000 and systems beyond IMT-2000;

d) that the ITU-R has adopted [Draft New] Recommendation ITU-R M.[DNR-VIS], which addresses the vision, framework, and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000;

e) that [Draft New] Recommendation ITU-R M.[DNR-VIS] has identified the new elements of systems beyond IMT-2000 that are to be developed, and has stated that such systems will closely inter-work with the currently operating IMT-2000 and with future developments of IMT-2000;

f) that the technical characteristics of systems beyond IMT-2000 have not been specified in an ITU-R Recommendation, but remain under study within the ITU-R;

g) that it was eight years ahead of the IMT-2000 initial deployment that **WARC-92** identified the spectrum for IMT-2000 in No. **5.388** and under the provisions of Resolution **212 (WARC-92)**;

~~*d)*~~*h)* that telecommunication and information technologies evolve rapidly;

~~*e)*~~*i)* that, as it is with many other service and systems, adequate spectrum availability is a prerequisite for the technological and economic success of the future development of IMT-2000 and systems beyond IMT-2000;

~~*f)*~~*j)* that the demand for the provision of multimedia applications such as high-speed data, IP-packet and video by mobile communication systems will continue to increase;

~~*g)*~~*k)* that the future development of IMT-2000 and systems beyond IMT-2000 is foreseen to address the need for higher data rates than those of currently deployed ~~planned for~~ IMT-2000 systems;

~~*h)*~~*l)* that, for global operation and economy of scale, it is desirable to agree on common technical, operational and spectrum-related parameters of systems;

~~*i)*~~*m)* that it is therefore timely to study technical, spectrum and regulatory issues pertinent to the future development of IMT-2000 and systems beyond IMT-2000;~~,~~

n) that Question ITU-R 77-4/8 addresses adaptation of mobile radiocommunications technology to the needs of developing countries, including the optimum arrangements and technical characteristics needed to use mobile technology/equipment in urban, rural or remote areas;

o) that all existing services, some of which are also evolving to permit the use of higher data rates and throughput within their allocations in order to meet increasing user demands and requirements, should be taken into account in any studies evaluating potential spectrum for systems beyond IMT-2000,

noting

a) that the IMT-2000 radio interfaces as defined in Recommendation ITU-R M.1457 are expected to evolve within the framework of the ITU-R beyond those initially specified, to provide enhanced services and services beyond those envisaged in the initial implementation;

b) that the use of the spectrum identified for IMT-2000 does not preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations,

recognizing

a) the time necessary to develop and agree on the technical, operational, spectrum and regulatory issues associated with the continuing enhancement of mobile services;

b) that service functionalities in fixed and mobile networks are increasingly converging;

c) that future mobile systems will ~~require the adoption of~~ employ more spectrum-efficient techniques than those used by current mobile systems;

d) the needs of developing countries for the cost-effective implementation of advanced mobile communication technologies and the propagation characteristics of lower frequency bands that result in larger cell sizes;~~,~~

e) that the review of IMT-2000 spectrum requirements at WRC-2000 concentrated on the bands below 3 GHz and that these bands remain technically desirable for both IMT-2000 and systems beyond IMT-2000;

f) that, to the extent that they may not be the same, it would be preferable for the location in the radiofrequency spectrum of bands that support systems beyond IMT-2000 to be reasonably close to the location of bands already identified for IMT-2000 and predecessor services;

g) that many countries have not yet made available spectrum already identified for IMT-2000, due to various reasons, including the use of these bands by existing services;

h) that studies may show that the identification of certain bands for use by the future development of IMT-2000 and systems beyond IMT-2000 may be precluded by the use of these bands by existing services,

resolves

1 to invite ITU-R to further study, and develop Recommendations on, ~~continue studies on overall objectives, applications and~~ technical and operational issues relating to~~implementation, as necessary, for~~ the future development of IMT-2000 and systems beyond IMT-2000;

2 to invite ITU-R to complete studies, in time for WRC-[07], on ~~study~~ the spectrum requirements and potential frequency ranges suitable for the future development of IMT-2000 and systems beyond IMT-2000, taking into consideration the bands currently identified for IMT-2000 and the evolution of IMT-2000 and pre-IMT-2000 systems therein through advances in technology~~and in what time-frame such spectrum would be needed~~;

3 that, taking into account the *recognizing* above, the studies in *resolves 1* and *2*:

a) examine the compatibility of the future development of IMT-2000 and systems beyond IMT-2000 with existing services, including their future development;

b) indicate the extent to which the existing services and their future development would be affected and how they can be protected from interference from the future development of IMT-2000 and systems beyond IMT-2000,

~~3~~4 that WRC-[07] consider, as a matter of urgency, the results of ITU-R studies and review the requirements and frequency related matters related to~~for~~ the future development of IMT-2000 and systems beyond IMT-2000, ~~be reviewed by WRC-05/06, taking into consideration the results of ITU-R studies presented to WRC-03~~in accordance with this Resolution~~,~~;

5. that the studies contemplated in *resolves 1-3* above take into consideration the needs of developing countries,

urges administrations

to participate actively in the studies by submitting contributions to ITU-R.

Reasons: Appropriately modify Resolution **228 (WRC-2000)** for further studies to consider detailed requirements and ensure that the interests of existing services are taken into consideration in these studies, and to enable WRC-07 to review these requirements. The Unites States is still considering what action should be taken concerning this issue as related to agenda item 7.2.

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